

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): ~~The light guiding device according to Claim 1~~

A light guiding device used for exposure of peripheral parts of a semiconductor wafer, comprising:

an optical fiber bundle, formed by bundling together a plurality of optical fibers and having a first light incidence end face and a first light emitting end face;

a glass rod, having a second light incidence end face and a second light emitting end face and making uniform the cross section of light emitting from said second light emitting end face by taking in, at said second light incidence end face, the light having emitted from said first light emitting end face of the optical fiber bundle and guiding this light to said second light emitting end face; and

a glass rod holding member, which fixes said glass rod to a light emitting end face side front end part of said optical fiber bundle so that said second light incidence end face of the glass rod faces said first light emitting end face of the optical fiber bundle,

said second light emitting end face of the glass rod having a rectangular shape, wherein said glass rod satisfies the relationships expressed by the following formulae (1) and (2):

$$L > \frac{d}{2} \frac{1}{\tan \theta'} \dots (1)$$

$$n \sin \theta = n' \sin \theta' \dots (2)$$

where:

$L[\text{mm}]$: length of said glass rod

$d[\text{mm}]$: length of the diagonal of said second light emitting end face of the glass rod

n : refractive index of air

n' : refractive index of said glass rod

θ : maximum emit angle from said optical fiber into air

θ' : angle of refraction of light, which has emitted from said optical fiber at the maximum emit angle, upon incidence onto said second light incidence end face.

Claim 3 (Currently Amended): The light guiding device according to Claim 2 [[1]], comprising a sleeve member, which covers the light emitting end face side front end part of said optical fiber bundle, and wherein said glass rod holding member is detachably mounted to said sleeve member.

Claim 4 (Currently Amended): The light guiding device according to Claim 2 [[1]], wherein
said plurality of optical fibers adheres to each other by an adhesive agent at the light emitting end face side front end part of said optical fiber bundle.

Claim 5 (Currently Amended): The light guiding device according to Claim 2 [[1]],
wherein
said first light emitting end face of the said optical fiber bundle faces said second light
incidence end face of the glass rod via a gap.

Claim 6 (Currently Amended): ~~The light guiding device according to Claim 1,~~
~~comprising~~[[:]] A light guiding device used for exposure of peripheral parts of a semiconductor
wafer, comprising:

an optical fiber bundle, formed by bundling together a plurality of optical fibers and
having a first light incidence end face and a first light emitting end face;

a glass rod, having a second light incidence end face and a second light emitting end
face and making uniform the cross section of light emitting from said second light emitting end
face by taking in, at said second light incidence end face, the light having emitted from said first
light emitting end face of the optical fiber bundle and guiding this light to said second light
emitting end face; and

a glass rod holding member, which fixes said glass rod to a light emitting end face side
front end part of said optical fiber bundle so that said second light incidence end face of the glass
rod faces said first light emitting end face of the optical fiber bundle,

said second light emitting end face of the glass rod having a rectangular shape; and

a sleeve member, covering the light emitting end face side front end part of said optical
fiber bundle; and

a curving part holding member, which, by being fixed to a portion of said optical fiber bundle in the vicinity of the light emitting end face side front end part and to said sleeve member, maintains a state wherein said optical fiber bundle is curved in the vicinity of said front end part.

Claim 7 (New): The light guiding device according to Claim 6, comprising a sleeve member, which covers the light emitting end face side front end part of said optical fiber bundle, and wherein said glass rod holding member is detachably mounted to said sleeve member.

Claim 8 (New): The light guiding device according to Claim 6, wherein said plurality of optical fibers adheres to each other by an adhesive agent at the light emitting end face side front end part of said optical fiber bundle.

Claim 9 (New): The light guiding device according to Claim 6, wherein said first light emitting end face of the said optical fiber bundle faces said second light incidence end face of the glass rod via a gap.